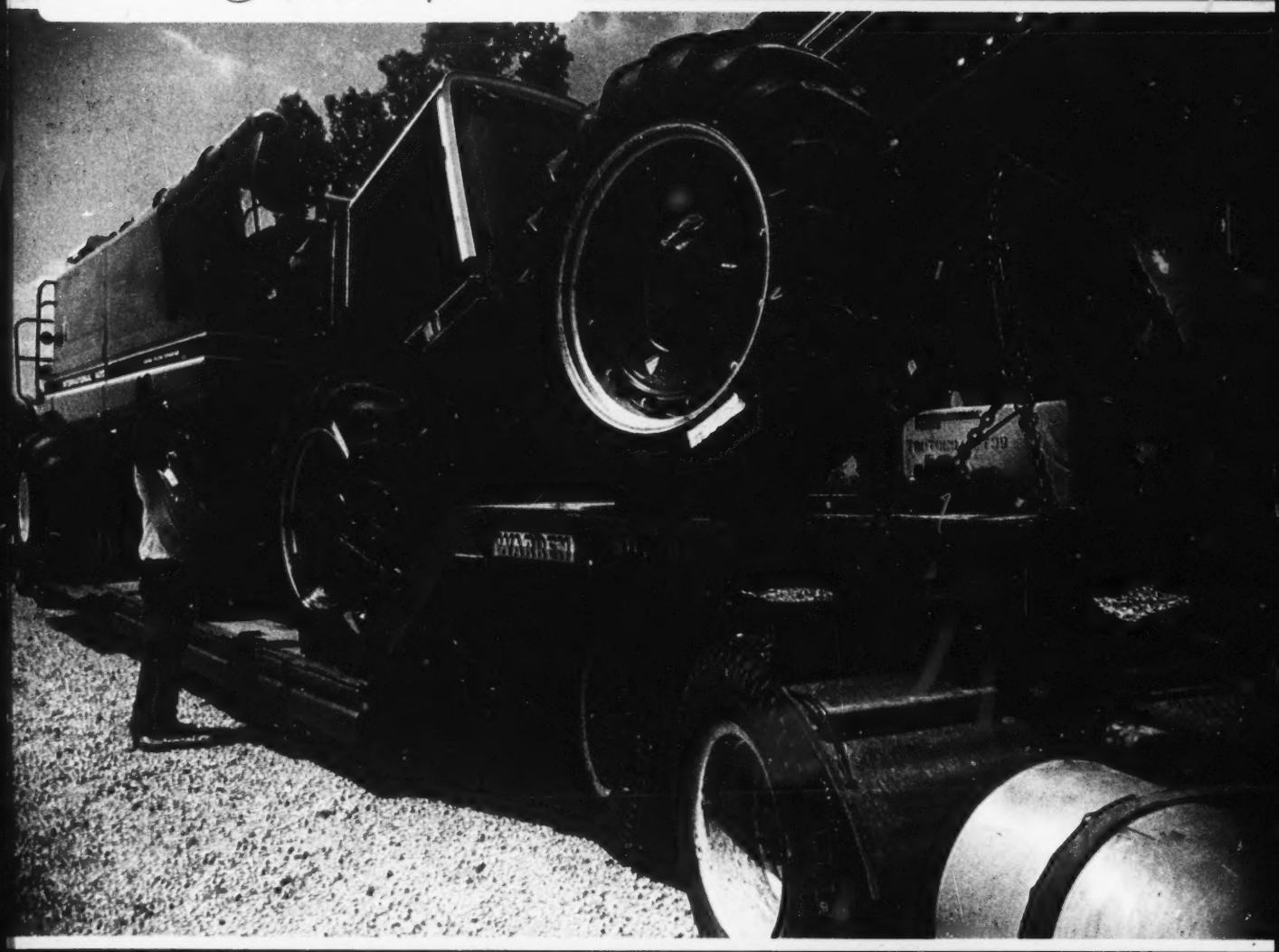
C4725-1



Changes in IH's Marketing, Distribution Structure

page 10

Creative Coping at Buck & Sons

page 18

20014 056 580 0000 30
061 092 03 HS41
** CONGRESSIONAL INFO
** SERVICE/SRI
4520 E W HWY SSITE 800
WASHINGTON DC 20014

August 7, 1981 • Vol. 96 • No. 16

Implement & Tractor

The Business Magazine of the Farm and Industrial Equipment Industry

in this issue...

10: **IH Reorganizes Its Marketing, Distribution Structure.** Better and faster responsiveness is the objective of the company that once had the most warehousing branches in the business, but now has none. Instead, they've gone to 48 district offices, a separate general sales office and a single distribution center.

18: **Coping Creatively With An Economic Slowdown.** Tacoma, Wash., Ford dealer Wayne Buck took some drastic steps during the past year to cut operating costs, but increased his gross margin. First of a two-part feature on adjusting to recession.

38: **Four New Products From Owatonna.** Rather than vastly expanding its North American dealer network, this supplier aims at enriching its appeal to its present dealers with a new windrower, smaller round baler, grinder-mixer and mower-conditioner.

46: **Meet Bob Tweedy.** The new president of the American Society of Agricultural Engineers (ASAE) comments on a wide range of issues including farm equipment suppliers' and dealers' relations with the organization.

On the cover... An Axial Flow Combine and a 2 + 2 tractor are loaded onto a standard trailer at International Harvester's Quad Cities' releasing yard for delivery to a dealer.

DEPARTMENTS

What's Ahead	4	Auction Prices	41
Editor's Notebook	5	News Briefs	49
Retail Sales of Wheel Tractors	6	Industry in Motion	51
Retail Sales of Selected Farm Equipment	16	Farm Equipment Patents	52
What's New	23	Classified Ads	54
		Index to Advertisers	54
		Brown Pages	55

IMPLEMENT & TRACTOR
Editorial, advertising and circulation correspondence should be addressed to:
9221 Quivira Rd.
P.O. Box 12901
Overland Park, Kan. 66212
(a suburb of Kansas City, Mo.)
Telephone (913) 888-4664
Telex: 42-4156; Answerback Intertec OLPK

EDITORIAL
Bill Fogarty, Editor
Jack Root, Managing Editor
Charles A. McMurray, Jr., Editor, Red Book
Pat Blanton, Editor, Product File
Dudley Rose, Senior Art Director
Anita Blattner, Art Director
Irma Allread, Associate Editor
Tina Thorpe, Editorial Assistant

Contributing Editors:
Graham Fuller, Britain and Europe
Frank Buckingham, Agricultural Engineering
Melvin E. Long, Engineering and Production Topics

CIRCULATION
John Arnst, Director
Evelyn Rogers, Manager
Dee Manies, Reader Correspondent

ABP A member of American Business Press

ABC A member of Audit Bureau of Circulation

ADVERTISING
Lou McNeill, Production
(Regional advertising sales offices listed on ad index page.)

ADMINISTRATION
R. J. Hancock, President
Edward F. Mickelis, Publisher

IMPLEMENT & TRACTOR (USPS 461-750), with which is combined Farm Implement News, is published twice monthly except in January and March, when third issues are published, and in July and December, when one issue only is published, by INTERTEC PUBLISHING CORP., 9221 Quivira Rd., Overland Park, Ks. 66215 (a suburb of Kansas City, Mo.).

Subscription information: Implement & Tractor is edited for persons in the farm and industrial equipment industry who function in the areas of retail sales and service, distribution sales and service, marketing, engineering, financing, manufacturing and general management. Subscription prices to qualified subscribers: U.S. one year—$10, two years—$15; elsewhere including Canada, one year—$17, two years—$25. Subscription prices to all others: U.S. one year—$34, two years—$56; elsewhere including Canada, one year—$38; two years—$78. Single copies, $2, except Annual Statistical Number, $4; Product File issue, $5; Red Book issue, $5. Adjustment necessitated by subscription termination at single copy rate. Extra charge for service on back issues. Allow 6-8 weeks for change of address and new subscriptions.

INTERTEC PUBLISHING CORP.

Second Class postage paid at Shawnee Mission, Ks. 66201.
Postmaster: Return Form 3579 to Implement & Tractor, P.O. Box 12901, Overland Park, Ks. 66212.

© Copyright, 1981, INTERTEC PUBLISHING CORP. All rights reserved. Material may not be reproduced or photocopied in any form without written permission of publisher.

BEST AVAILABLE COPY

what's ahead...

I&T SINCE 1886

August 7, 1981

JUST IN: U.S. RETAIL FARM EQUIPMENT SALES FOR JUNE. According to the flash report of the Farm & Industrial Equipment Institute, tractors were off 28 per cent and combines up 19 per cent, with similar contrasts showing for the six months. June, 1981, compares with a month, June, 1980, which experienced an 8 per cent tractor sales decline and a 31 per cent combine decline from June, 1979.

Unit Retail Sales

	June			January-June		
	1981	1980	Pct. Change	1981	1980	Pct. Change
Farm Wheel Tractors:						
2-wheel drive						
40-100 hp	4,614	6,806	-32.2	26,765	30,742	-12.9
Over 100 hp	2,942	3,869	-24.0	20,074	23,906	-16.0
Total 2-wheel drive	7,556	10,675	-29.2	46,839	54,648	-14.3
4-wheel drive	660	785	-15.9	4,748	5,026	- 5.5
Total Tractors	8,216	11,460	-28.3	51,587	59,674	-13.6
Combines (S-P)	1,799	1,512	+19.0	7,713	7,101	+ 8.6
Balers*	2,607	2,720	- 4.2	5,979	5,915	+ 1.1
Forage Harvesters**	808	787	+ 2.7	2,252	2,793	-19.4
Mower Conditioners	4,555	4,491	+ 1.4	9,490	9,457	+ 0.3

*Bales under 200 lbs. **Shear-bar type.

IN WHAT FAR-AWAY LAND ARE EQUIPMENT SALES UP? In Canada. According to the Canadian Farm & Industrial Equipment Institute, tractor retail sales in the first five months are up 9.1 per cent (up 10.3 per cent for May) with 11,524 units sold. Combine sales are up 21 per cent through the first five months, with 881 units retailed. Sales of conventional-size balers, however, are off 10.9 per cent at 523. Mower-conditioners--666 units sold--are even with last year.

PRICES OF TRACTORS AND SELF-PROPELLED MACHINERY TO FARMERS, says the USDA's Agricultural Outlook, will be up 10 to 12 per cent this year, compared with 12 per cent last year. This estimate, however, apparently fails to take in the substantial rebating being conducted by major companies, as well as major efforts by dealers to cut inventories through intense discounting. For example, a recent study by Bernstein & Co. of the farm equipment industry noted that International was offering discounts from suggested list price of 9.1 per cent on the 986, 7.9 per cent on the 1086, 9.3 per cent on the 3588 and 9.7 per cent on the 4586.

Copyright, 1981, by Intertec Publishing Corp. All rights reserved.
Material may not be reproduced or photocopied in any form without written permission of publisher.

BEST AVAILABLE COPY

RETAIL SALES OF WHEEL TRACTORS
(In Units)

	Total Wheel Tractors†				Cumulative for Jan.-April, 1980				Cumulative for Jan.-April, 1981			
	April, 1980		April, 1981		Farm Type				Farm Type			
	Farm	Non-Farm	Farm	Non-Farm	2-Wheel Drive	4-Wheel Drive	Total Farm	Non-Farm	2-Wheel Drive	4-Wheel Drive	Total Farm	Non-Farm
Alabama	213	26	286	44	874	33	907	134	657	16	673	110
Alaska	1	1	3	2	4	.....	4	3	9	.....	9	15
Arizona	71	33	79	42	279	31	310	165	257	24	281	129
Arkansas	428	56	275	36	1,225	158	1,383	188	965	142	1,107	118
California	447	186	518	213	1,457	101	1,558	896	1,433	146	1,579	780
Colorado	136	36	119	45	322	77	399	202	350	77	427	166
Connecticut	46	23	22	16	86	.....	86	74	56	1	57	49
Delaware	25	3	10	.....	64	4	68	10	40	1	41	9
Florida	170	102	245	100	734	19	753	427	789	19	808	375
Georgia	231	39	229	68	1,128	22	1,150	151	882	12	894	192
Hawaii	5	9	7	4	17	.....	17	43	24	3	27	22
Idaho	112	15	183	6	334	35	369	54	509	73	582	57
Illinois	467	56	632	73	1,702	274	1,976	252	1,540	293	1,833	239
Indiana	327	50	325	36	974	168	1,142	177	799	131	930	120
Iowa	564	21	809	19	2,175	226	2,401	91	2,065	234	2,299	62
Kansas	377	34	249	43	998	229	1,227	132	691	167	858	115
Kentucky	360	23	412	28	1,289	29	1,318	102	1,245	19	1,264	173
Louisiana	245	62	374	74	892	108	1,000	213	958	99	1,057	244
Maine	16	14	28	6	51	2	53	45	72	3	75	24
Maryland	86	30	75	23	244	20	264	96	166	11	177	121
Massachusetts	9	15	19	23	34	.....	34	79	42	.....	42	85
Michigan	225	62	390	62	706	73	779	275	759	125	884	227
Minnesota	489	42	695	26	1,223	253	1,476	146	1,456	251	1,707	100
Mississippi	311	29	307	36	1,203	109	1,312	106	880	80	960	113
Missouri	345	66	346	50	1,286	105	1,391	220	940	99	1,039	155
Montana	181	28	143	16	365	101	466	74	270	87	357	52
Nebraska	295	9	329	5	1,292	159	1,451	61	971	103	1,074	42
Nevada	15	10	18	17	37	5	42	43	40	6	46	41
New Hampshire	14	10	10	10	38	.....	38	28	20	.....	20	28
New Jersey	37	39	19	49	105	.....	105	155	75	.....	75	127
New Mexico	73	16	43	24	157	9	166	69	124	14	138	94
New York	249	84	258	69	684	26	710	276	630	56	686	236
North Carolina	377	52	292	60	1,174	18	1,192	215	1,003	13	1,016	186
North Dakota	311	21	403	8	517	294	811	38	597	321	918	21
Ohio	417	70	417	56	1,266	137	1,403	274	1,010	129	1,139	226
Oklahoma	228	43	226	71	734	106	840	182	567	78	645	248
Oregon	133	23	143	32	380	24	404	150	325	41	366	111
Pennsylvania	168	79	231	98	656	19	675	350	620	32	652	283
Rhode Island	1	3	3	3	5	.....	5	18	5	.....	5	16
South Carolina	165	20	113	37	558	22	580	99	381	9	390	113
South Dakota	183	6	179	7	543	103	646	33	456	100	556	23
Tennessee	272	38	301	27	1,016	35	1,051	138	860	27	887	113
Texas	684	334	941	329	2,950	202	3,152	1,241	2,790	164	2,954	1,182
Utah	81	17	59	31	175	11	186	111	214	11	225	105
Vermont	18	3	25	7	64	.....	64	6	83	1	84	18
Virginia	198	39	196	41	696	12	708	220	517	7	524	153
Washington	237	64	182	45	584	52	636	160	451	70	521	108
West Virginia	44	6	33	10	121	.....	121	37	98	.....	98	47
Wisconsin	500	40	585	37	1,394	83	1,477	169	1,283	101	1,384	133
Wyoming	54	11	62	18	104	12	116	59	140	14	154	70
U.S. Government	17	45	.....	1	43	.....	43	296	4	.....	4	33
Miscellaneous‡	13	69	49	109	130	.....	130	235	95	.....	95	225
TOTAL	**10,671**	**2,212**	**11,897**	**2,292**	**35,089**	**3,506**	**38,595**	**9,018**	**31,213**	**3,410**	**34,623**	**7,836**

Data released June 18, 1981, Farm & Industrial Equipment Institute.

*Figures do not include garden tractors, motor tillers or contractors off-highway types. Report includes units marketed by these firms: Allied Farm Equip. (Leyland Satoh); Allis-Chalmers; Belarus; J I Case; Deere; Deutz; Ford; International Harvester; Long; Massey Ferguson; R. M. Wade (Satoh); Steiger; Versatile; and White.

†The monthly sales are those reported for that month only. The cumulative totals are subject to revision reflecting updating in the basic sales data.

‡Sales reported as miscellaneous are retail sales which cannot be classified by state or as U.S. Government. They include sales and dispositions that do not go through usual marketing channels such as gifts to non-profit organizations, intra-plant or company transfers, etc.

BEST AVAILABLE COPY

RETAIL SALES OF SELECTED FARM EQUIPMENT – Jan.-Apr., 1980 and 1981(1)
(In units)

	Combines Self-Propelled		Corn Heads		Hay Balers(2)		Windrowers Self-Propelled: Power Units		Windrowers Self-Propelled: Total Heads		Grinder-Mixers		Shear-Bar Forage Harvesters(3)	
	1980	1981	1980	1981	1980	1981	1980	1981	1980	1981	1980	1981	1980	1981
Alabama	42	33	7	5	20	47	2	.....	1	.....	68	29	3	8
Alaska	.....	.....	.....	.....	.....	5	.....	.....	.....	.....	.....	.....	.....	.....
Arizona	15	37	.....	1	6	23	22	26	30	29	4	1	2	6
Arkansas	95	199	.....	1	45	53	.....	.....	.....	.....	38	28	2	2
California	70	90	6	13	32	57	88	118	103	131	.....	2	19	19
Colorado	45	75	19	19	30	33	27	30	29	34	36	21	17	6
Connecticut	.....	.....	.....	.....	12	3	.....	.....	.....	.....	.....	.....	6	3
Delaware	6	6	3	3	1	2	1	1	1	1	6	2	1	1
Florida	13	10	5	7	18	18	.....	.....	.....	.....	23	8	9	2
Georgia	60	60	50	19	16	43	1	.....	1	.....	143	34	12	16
Hawaii	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
Idaho	32	83	3	1	69	64	44	54	42	54	24	12	10	4
Illinois	473	458	480	394	51	48	4	4	4	4	253	176	50	51
Indiana	322	255	312	239	37	50	4	1	4	1	189	105	39	18
Iowa	600	455	555	444	57	58	17	25	17	24	657	427	121	64
Kansas	439	442	58	25	73	57	60	70	58	71	124	79	49	14
Kentucky	56	57	31	28	41	59	1	6	1	3	184	88	29	34
Louisiana	45	58	.....	1	8	17	.....	.....	.....	.....	7	4	5	2
Maine	.....	.....	.....	.....	4	6	.....	.....	.....	.....	.....	1	8	3
Maryland	27	15	20	25	19	16	4	1	4	1	15	13	17	10
Massachusetts	.....	.....	.....	.....	6	4	.....	.....	.....	.....	.....	.....	1	4
Michigan	94	87	82	67	38	32	6	10	6	9	104	89	67	51
Minnesota	265	274	218	182	144	119	63	72	62	77	297	240	110	92
Mississippi	73	80	.....	2	13	31	.....	.....	.....	.....	16	15	11	8
Missouri	202	173	111	55	78	69	11	7	11	9	273	155	21	24
Montana	65	111	2	2	42	33	57	51	58	57	31	18	8	2
Nebraska	337	233	257	155	31	27	56	50	52	54	293	161	52	30
Nevada	1	1	.....	.....	10	5	8	11	9	11	2	2	1	1
New Hampshire	.....	.....	.....	.....	9	12	.....	.....	.....	.....	.....	1	5	.....
New Jersey	6	4	7	5	3	5	.....	.....	.....	.....	4	3	4	3
New Mexico	4	13	2	.....	14	23	9	15	9	15	4	4	.....	.....
New York	25	15	35	19	101	57	9	7	10	8	59	46	107	45
North Carolina	50	46	44	36	40	52	.....	.....	.....	.....	81	49	11	7
North Dakota	165	256	7	10	11	7	43	63	45	66	64	51	15	5
Ohio	293	184	197	150	76	79	3	1	3	1	202	113	48	42
Oklahoma	145	201	2	1	91	83	18	29	18	30	59	37	5	4
Oregon	24	48	3	2	54	50	30	32	31	50	16	8	6	9
Pennsylvania	37	29	46	21	135	92	5	10	7	9	138	99	100	60
Rhode Island	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
South Carolina	41	28	16	6	14	16	.....	.....	.....	.....	30	15	7	9
South Dakota	92	95	52	36	19	7	60	58	64	62	182	92	39	28
Tennessee	65	52	33	11	65	99	1	.....	1	.....	94	56	21	22
Texas	164	287	22	30	104	178	10	24	9	31	105	66	23	17
Utah	4	7	1	.....	35	25	19	16	19	15	18	6	9	4
Vermont	.....	.....	.....	.....	16	11	.....	.....	.....	.....	1	1	25	7
Virginia	26	19	18	13	67	62	3	.....	3	.....	48	23	38	18
Washington	51	81	6	6	48	35	29	24	25	29	11	3	15	19
West Virginia	.....	.....	.....	.....	26	26	.....	.....	.....	.....	14	6	.....	1
Wisconsin	89	67	113	70	305	226	67	49	66	52	255	199	367	215
Wyoming	9	15	1	1	18	14	14	18	15	19	5	9	3	2
U.S. Government	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Miscellaneous (4)	.....	.....	.....	12	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
TOTAL	**4,667**	**4,739**	**2,824**	**2,119**	**2,152**	**2,138**	**796**	**883**	**818**	**957**	**4,177**	**2,597**	**1,520**	**991**

Data released June 18, 1981, Farm & Industrial Equipment Institute.

(1) Includes revisions for prior months.
(2) For making bales of under 200 lbs.
(3) Pull-type, mounted, self-propelled.
(4) Sales reported as miscellaneous are retail sales which cannot be classified by state or as U.S. Government. They include sales and dispositions that do not go through usual marketing channels such as gifts to non-profit organizations, intra-plant or company transfers, etc.

Mower Conditioners All Types 1980	1981	Manure Spreaders Conveyor-Type 1980	1981	
17	24	12	5	Alabama
.....	2	.....	1	Alaska
2	3	4	1	Arizona
65	69	50	40	Arkansas
10	13	19	23	California
12	24	31	27	Colorado
12	8	31	29	Connecticut
4	1	41	30	Delaware
13	15	10	11	Florida
53	55	19	13	Georgia
.....	.....	.....	.....	Hawaii
19	20	50	49	Idaho
83	128	296	248	Illinois
79	91	216	234	Indiana
157	185	691	664	Iowa
114	110	109	72	Kansas
169	161	129	123	Kentucky
12	13	9	7	Louisiana
11	11	38	21	Maine
16	11	113	73	Maryland
11	6	30	28	Massachusetts
74	78	343	313	Michigan
178	155	589	487	Minnesota
12	23	8	11	Mississippi
302	191	155	113	Missouri
18	27	17	8	Montana
112	97	213	86	Nebraska
2	2	.....	1	Nevada
10	10	24	13	New Hampshire
9	3	23	16	New Jersey
2	2	3	4	New Mexico
149	113	607	590	New York
54	50	75	47	North Carolina
12	12	32	26	North Dakota
151	123	415	358	Ohio
121	105	25	13	Oklahoma
37	38	40	28	Oregon
182	90	632	512	Pennsylvania
1	.....	.....	.....	Rhode Island
13	27	15	4	South Carolina
17	19	90	84	South Dakota
119	130	85	58	Tennessee
178	178	67	61	Texas
17	20	55	39	Utah
24	13	89	71	Vermont
153	88	115	69	Virginia
26	37	64	41	Washington
29	22	30	31	West Virginia
374	335	947	803	Wisconsin
3	6	16	13	Wyoming
.....	.....	.....	.....	U.S. Government
.....	.....	.....	.....	Miscellaneous
3,238	**2,944**	**6,677**	**5,599**	**TOTAL**

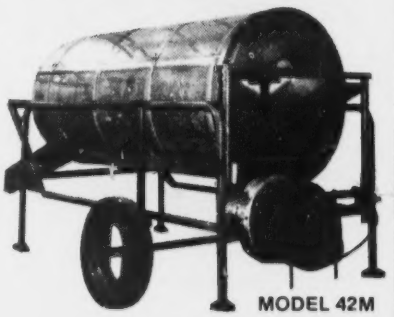
GRAIN CLEANERS ARE SELLING NOW!

CASH IN NOW!

Your Customers Know Clean Grain Dries at Less Cost . . . Stores Better . . . Sells Higher

SIOUX GRAIN CLEANERS

SIOUX Cleaners are your customers' first choice. Both models have big 42" diameter double-cleaning drums that handle up to 1,900 BPH of 15% corn. Inside drums clean heavy trash . . . outside drums clean weed seeds and fines. That makes faster and more complete cleaning of corn, beans, wheat, sunflowers, barley, etc. Big ground clearance knocks out back-breaking clean-up chores. SIOUX 42M easily moved by hand around bin site.



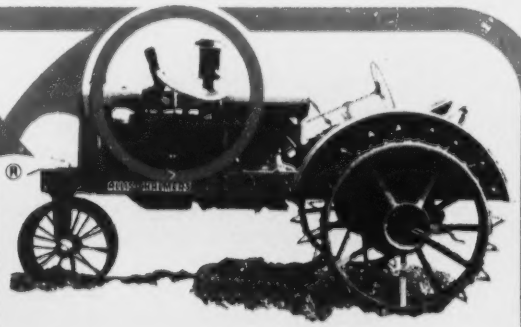
Grain cleaners are selling now! Your customers want a SIOUX Grain Cleaner. Contact us today for full information and discounts.

Write Dep't. K-325-81
SIOUX STEEL CO.
Sioux Falls, So. Dak. 57101

SIOUX STEEL COMPANY

Circle (9) on Reply Card

RW®



Precleaners work for years and years and years

The RW Precleaner has superior quality and workmanship, and has absolutely no moving parts. It will perform for the life of the equipment on which it is installed. No dealer maintenance is ever required, which provides more dealer profits and no dealer aggravation.

These facts coupled with the best distributor organization and service in the industry, makes becoming a RW dealer a real pleasure.

Write for complete dealer information today.

If you don't, you are missing a sure bet.

asi ACCESSORY SALES, INC.
POST OFFICE BOX 214
KIMBALL, NEBRASKA 69145
PHONE: (308) 235-4685

Name
Company
Address
City State Zip

Circle (10) on Reply Card

AUCTION PRICES OF USED EQUIPMENT

An exclusive I&T monthly report of actual prices paid recently at these leading national wholesale auctions.

Asterisk beside tractor price indicates highest bid offered on tractors which were not sold.

JONES FARM EQUIPMENT CO. Dothan, Alabama (June 9, 1981)

ALLIS-CHALMERS TRACTOR
7040 diesel, 1976 (Good) 9975*

CASE TRACTORS
5808 diesel, ldr., backhoe, 1972 (Good) 5700
5808 diesel, ldr., backhoe, 1972 (Good) 5700*
5808 diesel, ldr., backhoe, 1971 (Fair) 4250
480C diesel, ldr., (Good) 6500

DAVID BROWN TRACTORS
1212 diesel, 1974 (Fair) 3100*
990 diesel, 1966 (Good) 2150

MASSEY-FERGUSON TRACTORS
1105 diesel, 1976 (Good) 6600*
1105 diesel, 1973 (Good) 6400*
1100 diesel, 1969 (Fair) 3900
1080 diesel, 1972 (Fair) 3800*
1080 diesel, 1970 (Good) 5200
285 diesel, 1977 (Excellent) 8100
285 diesel, 1976 (Good) 6350
285 diesel, 1975 (Good) 6600*
265 diesel, 1975 (Good) 5600
255 diesel, 1977 (Excellent) 6600
245 diesel, 1976 (Good) 4250
245 diesel, 1976 (Excellent) 6100
235 diesel, 1976 (Good) 4000
188 diesel, 1969 (Good) 3800
180 diesel, 1969 (Good) 3300
180 diesel, 1966 (Good) 2950*
180 diesel, 1966 (Good) 3100*
175 diesel, 1975 (Good) 4000
165 diesel, 1967 (Fair) 3050*
165 diesel, 1967 (Good) 3600
165 diesel, 1967 (Good) 3450
165 diesel, 1967 (Fair) 2800
135 diesel, 1973 (Fair) 2400*
135 diesel, 1971 (Good) 2900
135, 1968 (Good) 3300
135 diesel, 1968 (Good) 2900*
135 diesel, 1966 (Good) 3400
135 diesel, 1966 (Good) 2800
130, 1966 (Good) 1550
65 diesel, 1963 (Fair) 1400*
65 diesel, 1963 (Good) 2075
50 diesel, 1963 (Good) 1675
50 diesel, 1963 (Good) 1800*
50 diesel, 1961 (Good) 1750*
35 diesel, 1963 (Good) 2350
35, 1963 (Good) 1875
35, 1959 (Fair) 950
35 diesel, 1959 (Fair) 1325
35, 1957 (Good) 1800
35, 1956 (Fair) 1150
35, 1956 (Fair) 1450
35, 1956 (Rough) 1000
35, 1956 (Fair) 1250
TO 20, 1949 (Good) 800

FORD-FERGUSON TRACTOR
9N, 1948 (Good) 900

FORD TRACTORS
9600 diesel, 1973 (Good) 5875
8600 diesel, 1974 (Good) 6000
8000 diesel, 1969 (Fair) 3600
7600 diesel, 1975 (Good) 6925
5000 diesel, 1976 (Good) 4400*
5000 diesel, 1975 (Excellent) 5300
5000 diesel, 1968 (Good) 4450
5000 diesel, 1968 (Rough) 2900
3400 diesel, ldr., 1968 (Good) 2900
4000 diesel, ldr., 1972 (Excellent) 5700*
4000, 1968 (Fair) 2600*
4000, 1968 (Good) 3400
4000, 1968 (Good) 2950*
4000 diesel, 1968 (Good) 3350
4000, 1963 (Fair) 1450
4000, 1963 (Excellent) 3100*
4000, 1963 (Good) 1925
3600 diesel, 1972 (Good) 5300*
3400 diesel, 1970 (Fair) 1900
3400 diesel, 1968 (Rough) 1050
3000, 1966 (Good) 2900
2000, 1967 (Good) 2400
2000, 1963 (Rough) 975
2000, Select-O-Speed, 1963 (Rough) 800
2000 diesel, 1963 (Fair) 1400
Sup. Maj. diesel, 1962 (Good) 875
850, 1958 (Excellent) 2300
851, 1958 (Good) 1775*
851 diesel, 1958 (Fair) 1500*
850 diesel, 1955 (Good) 1900*
841, cutter, 1961 (Fair) 1550
841, 1958 (Fair) 1500
641, 1960 (Fair) 1600
641, 1959 (Good) 1950*
641, 1958 (Fair) 1675
641, 1958 (Rough) 1025
640, 1956 (Good) 1950*
NAA, 1954 (Fair) 1200*
8N, 1952 (Excellent) 1400*
8N, 1949 (Good) 1050
8N, 1948 (Good) 900*

INTERNATIONAL HARVESTER TRACTORS
1066 diesel, 1973 (Good) 6800*

(More...)

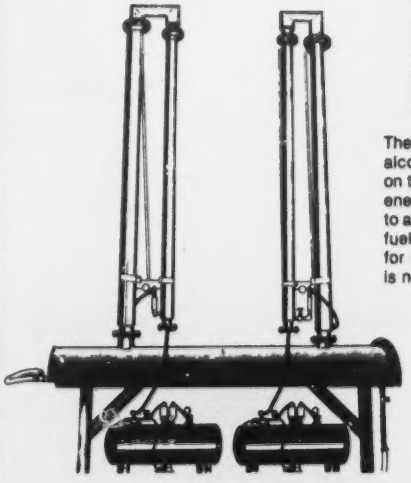
Heart disease and stroke will cause half of all deaths this year.

Put your money where your Heart is.

American Heart Association
WE'RE FIGHTING FOR YOUR LIFE

Farm Size Alcohol Still

the HCFV Alcohol Still (60% More Efficient)



The Horizontal Continuous Feed Vacuum (HCFV) alcohol still is at least 5 years ahead of anything else on the market! This revolutionary still decreases the energy required to convert grain to alcohol by 50% to a mere 20,000 BTU's per gallon, thus reducing the fuel necessary to operate the still. This patent applied for process is only available on the HCFV still and is now offered by Modular Fuel Systems.

- **5-100 Gallons Per Hour 6 Different Sizes**
- **Continuous Flow Vacuum Process**
- **Complete Systems**
- **Installation Available**
- **Advance Technology**

Call or Write for More Information
Dealer Inquiries Invited

MFS **MODULAR FUEL SYSTEMS**
2348 FM 1960 West • Houston, Texas 77068
(713) 537-6155

Circle (32) on Reply Card

Auctions *(continued)*

1066 diesel, 1972 (Good) 6400*
656 diesel, 1969 (Rough) 1700
656 diesel, 1966 (Good) 3300*
656 diesel, 1965 (Fair) 2850
574 diesel, 1973 (Good) 2950*
574 diesel, 1973 (Good) 2900*
574 diesel, 1973 (Good) 3175
574 diesel, 1973 (Excellent) 4025
504 diesel, 1967 (Good) 1800
504 diesel, 1967 (Good) 2325
460 diesel, 1963 (Good) 1100
454 diesel, 1971 (Fair) 2250
2444, 1969 (Rough) 1000
424 diesel, 1967 (Good) 1900*
B414, 1960 (Good) 1775
340, 1960 (Fair) 800*
284 diesel, 1977 (Good) 3250
284 diesel, 1976 (Fair) 1900*
275 diesel, 1959 (Good) 725
W 6, 1953 (Rough) 425*
Sup. C, 1953 (Good) 800
Sup. A, 1950 (Good) 1000
Cub, mo., cult., 1952 (Excellent) 2200
Cub, mo., 1949 (Good) 1050*

JOHN DEERE TRACTORS

4630 diesel, cab, duals, 1975 (Good) 11,900*
4020 diesel, 1967 (Fair) 3750*
4020 diesel, 1966 (Good) 5000*
4020, 1964 (Excellent) 5700
4010 diesel, bld., 1963 (Excellent) 5500
3020 diesel, 1965 (Rough) 2500*
3010, 1962 (Rough) 2300*
2020 diesel, 1966 (Fair) 3400*
2010 diesel, 1961 (Fair) 1450
1010, 1964 (Fair) 1175
1010, 1964 (Fair) 1050
1010, 1963 (Good) 1575
1010, 1963 (Good) 1850*
1010, 1962 (Good) 1600
830 diesel, 1973 (Good) 3200*
430, 1958 (Good) 1100
420, 1956 (Fair) 700
320, cult., 1957 (Good) 1900
60, 1953 (Rough) 375
40, 1953 (Good) 725
MT, 1950 (Good) 700*

KUBOTA TRACTOR

L245, 1979 (Good) 3100

LONG TRACTOR

360 diesel, (Excellent) 3600

MALONE TRACTOR

G955 diesel, 1973 (Good) 3200*

BILL ENLOW TRACTOR SALES
Tulsa, Okla.
(June 13, 1981)

ALLIS-CHALMERS TRACTORS

WC, 1943 (Good) 325
D-14, 1957 (Fair) 750*
D-14, 1960 (Good) 1500
5040 diesel, 1978 (Good) 4550

CASE TRACTORS

600, 1957 (Fair) 1300
530, backhoe, 1964 (Good) 3850
530, backhoe, 1966 (Good) 4050
930 diesel, 1963 (Good) 2575
930 diesel, 1964 (Good) 2250*
970 diesel, 1973 (Good) 7500*
2670 diesel, 1976 (Good) 16,500*

FERGUSON TRACTORS

20, 1948 (Good) 1375
20, 1948 (Good) 1650
20, 1950 (Fair) 1150
30, 1953 (Good) 1430

FORD TRACTORS

9N, 1939 (Good) 1150
9N, 1940 (Good) 1000
9N, 1942 (Fair) 900
9N, 1945 (Good) 1275
9N, 1946 (Good) 1375
9N, 1946 (Good) 1250
8N, 1947 (Fair) 1100*
8N, 1948 (Fair) 1000
8N, 1948 (Fair) 1175
8N, 1949 (Fair) 1175
8N, 1949 (Good) 1650
8N, 1949 (Good) 1675
8N, 1950 (Good) 1600
8N, 1950 (Good) 1500
8N, 1950 (Good) 1475
8N, 1950 (Good) 1425
8N, 1951 (Good) 1375
8N, 1951 (Good) 1725
8N, 1952 (Good) 1550
8N, 1952 (Good) 1725
8N, 1952 (Good) 1620
8N, 1952 (Good) 1850
NAA, 1953 (Good) 1650
NAA, 1953 (Fair) 1500*
NAA, 1953 (Good) 1700*
600, 1955 (Fair) 1700
600, 1956 (Good) 2000
800, LP, 1954 (Fair) 1550*
800, 1955 (Good) 2175
800, 1955 (Good) 2050
800, 1956 (Fair) 1900*
800, 1956 (Good) 2275
900, 1956 (Good) 1275
Dexta, 1960 (Fair) 1500*
3000, 1966 (Fair) 1900
3000 diesel, 1967 (Fair) 2800
5000 diesel, 1966 (Fair) 3500*
5000 diesel, 1967 (Good) 3800
6000 diesel, 1965 (Fair) 1200*
9600 diesel, (Good) 7000*
1500, 1979 (Good) 3800
4100 diesel, ldr., 1978 (Good) 6500*

INTERNATIONAL HARVESTER TRACTORS

Cub, 1952 (Good) 1400
Cub, 1954 (Good) 1375
Cub, 1957 (Fair) 1125
Cub, Loboy, 1968 (Good) 1500
154 Cub, 1970 (Good) 2350
A, 1945 (Good) 525
C, 1949 (Fair) 400*
M diesel, 1948 (Good) 1000*
Super M, 1951 (Fair) 600
340, 1959 (Good) 1000*
400, 1955 (Good) 1250*
444, 1968 (Good) 2950

JOHN DEERE TRACTORS

A, 1945 (Fair) 200
MT, 1951 (Good) 600
440, ldr., 1958 (Fair) 2000

KUBOTA TRACTOR

L245 diesel, 1975 (Good) 2700

LONG TRACTOR

900 diesel, ldr., 1969 (Good) 2750

MASSEY-FERGUSON TRACTORS

35, ldr., 1962 (Good) 2500*
35 diesel, 1963 (Good) 2950
50 diesel, 1961 (Fair) 1925

(More...)

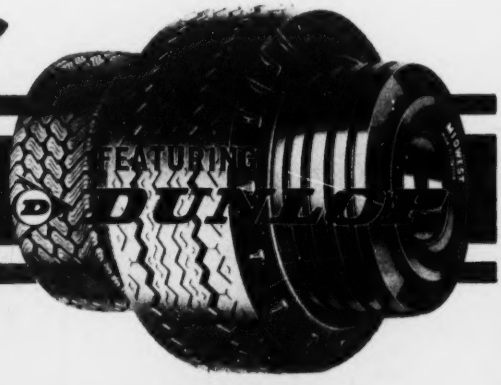
SAVE ON CAR-TRUCK-TRACTOR AND IMPLEMENT TIRES

Supplying stores, dealers, fleets & manufacturers exclusively

WRITE FOR CATALOG OR CALL TOLL FREE
800-325-7120

MIDWEST TIRE COMPANY OF ST. LOUIS, INC.
2130 Delmar Blvd., St. Louis, Mo. 63103
Phone: (314) 241-0062

OUR 46TH YEAR



Circle (40) on Reply Card

Henderson 10° Load & Go Carrier
eliminates most winching

This heavy duty carrier with full roll back design saves time and simplifies transporting equipment. Rolling equipment can be driven aboard thanks to low 10° loading angle made possible by more than ten feet of roll back.

Double acting cylinders lift the platform to dumping angles as steep as 30°. Safe, one man operation with separate tilt and roll controls. Rugged winch provided for non-rolling loads.

Write for complete information.

10° loading angle
Dealer Inquiries Invited

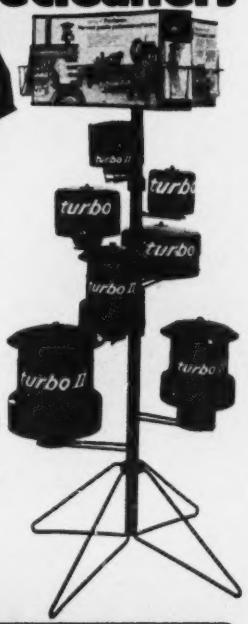
Henderson Manufacturing Co.
P.O. Box 40
Manchester, Iowa 52057
(319) 927-2828

Henderson Chief

Circle (34) on Reply Card

turbo Precleaners

The No. 1 PRECLEANER



Eliminates up to 99% of dust, dirt, chaff, rain and snow!

- Extends filter life up to 10 times longer.
- Extends engine life.
- No exhaust connections.

Traffic stopping display moves precleaners off the shelf.

- Free merchandising aids.
- Advertising in leading farm publications.
- Full one year or 3,000 hour warranty.

SURECO

4701 HUMBOLDT AVE. NO., MINNEAPOLIS, MN 55430
PHONE (612) 529-9166

Circle (36) on Reply Card

ZERO LEAKAGE!

Kep-O-Seal

CHECK VALVES

Outstanding zero leakage control with the proven Flexible Seal Seat*. Kep-O-Seal Valves handle dirt without damage or loss of positive sealing action. Rugged design, long service life, easy field maintenance, controlled quality assured. ⅛" - 2" full pipe flow. Standard ratings to 5000 psi. Specials to 10,000 psi.

Pre-set cracking pressures available.

*patented

KEPNER PRODUCTS COMPANY

995 N. Ellsworth Avenue, Villa Park, IL 60181 • 312-279-1550 • Telex: 27-0081

Circle (37) on Reply Card

Auctions *(continued)*

50, 1962 (Good) 2250*
65, 1963 (Good) 3000
65, 1964 (Rough) 1550
Super 90, 1960 (Fair) 1925
135, 1969 (Good) 3275
150, 1966 (Fair) 1750
165, 1967 (Good) 2800*
165 diesel, 1971 (Good) 3850
175 diesel, 1966 (Rough) 2500
175 diesel, 1966 (Fair) 2635
180 diesel, 1969 (Good) 3500
1100 diesel, 1968 (Rough) 3200*
230 diesel, 1980 (New) 6950*
40, ldr., 1967 (Rough) 1875
202, 1969 (Good) 2575*
302, ldr., 1967 (Fair) 2350

MINNEAPOLIS-MOLINE TRACTOR
G 900 diesel, 1968 (Fair) 2700*

OLIVER TRACTORS
1600 diesel, 1963 (Fair) 2400*
1800 diesel, 1962 (Fair) 2600*

YODER & FREY, INC.
Archbold, Ohio
(June 9, 1981)

ALLIS-CHALMERS TRACTORS
7030 diesel, 1974 (Fair) 8250*
7000 diesel, 1976 (Good) 7750*
440 diesel, (Rough) 6800
XT190 diesel, 1967 (Fair) 5000*
XT190 diesel, 1967 (Fair) 4800*
160, ldr., 1966 (Fair) 4200*
D19, 1964 (Fair) 2200*
D15, 1958 (Rough) 1050
WD45, 1950 (Fair) 950
WD45, 1950 (Fair) 910
G, 1946 (Fair) 1025*
C, mo., 1950 (Good) 1200

DAVID BROWN TRACTORS
4600, ldr., 1965 (Good) 2700*
995, 1976 (Good) 4200*
995, 1972 (Good) 3250*

CASE TRACTORS
1370 diesel, 1974 (Good) 11,500*
1370 diesel, 1971 (Fair) 8100*
1030 diesel, 1966 (Good) 4100*
1030 diesel, 1966 (Good) 3500
730, 1964 (Fair) 2000
600, ldr., 1956 (Good) 1400*
430 diesel, 1956 (Rough) 1600*

JOHN DEERE TRACTORS
8630 diesel, 1975 (Good) 30,000*
4440 diesel, 1980 (Excellent) 26,000*
4430 diesel, 1974 (Excellent) 15,250*
4430 diesel, 1974 (Good) 14,250*
5020 diesel, 1968 (Good) 6250*
4030 diesel, 1973 (Fair) 12,500
4020 diesel, 1966 (Fair) 6200
4020 diesel, 1967 (Good) 5000
4020 diesel, 1967 (Good) 5000
4010 diesel, 1962 (Good) 4175
4010 diesel, 1961 (Rough) 3900
2130, 1975 (Good) 5800*
2030 ldr., 1974 (Excellent) 6075
2020, ldr., 1965 (Fair) 2650
2010, 1958 (Fair) 2350
2010, 1961 (Rough) 1375
830 diesel, 1957 (Rough) 2000*
730 diesel, 1957 (Fair) 2100*
620, 1957 (Fair) 1500
430, 1954 (Rough) 1000
70, 1953 (Fair) 1000*
60, 1956 (Fair) 820
A, 1947 (Rough) 450
B, 1947 (Fair) 625
B, 1947 (Good) 975
LA, plant., cult., mo., (Good) 1000

FORD TRACTORS
9600, (Fair) 8500
8000, 1971 (Rough) 4700*
7000 diesel, 1972 (Good) 7000
5000, ldr., 1972 (Good) 4550
5000, ldr., 1964 (Good) 2825
4100 diesel, 1977 (Good) 6200
4000, 1971 (Good) 3400*
4000, (Rough) 1325
3600 diesel, 1975 (Excellent) 5000
3000, ldr., (Good) 2450*
600, 1956 (Rough) 1500
Maj., 1956 (Fair) 1125
NAA, 1955 (Fair) 1950
Dexta, 1951 (Fair) 1175*
8N, 1950 (Fair) 1200
8N, 1947 (Fair) 1050
8N, 1950 (Rough) 800
9N, ldr., 1946 (Fair) 1050
9N, ldr., 1946 (Fair) 900
9N, ldr., 1945 (Fair) 860
9N, 1945 (Fair) 775
9N, 1943 (Fair) 850
9N, 1942 (Fair) 725
9N, 1942 (Fair) 725

INTERNATIONAL HARVESTER TRACTORS
1566 diesel, 1974 (Good) 12,500*
1466 diesel, 1976 (Good) 12,250*
2400, 1969 (Good) 2650
966 diesel, 1974 (Good) 7300*
966 diesel, 1972 (Fair) 7250*
856 diesel, 1968 (Fair) 7100*
806 diesel, 1964 (Fair) 4100*
806, 1964 (Fair) 2700
766 diesel, 1972 (Rough) 7900*
656, 1968 (Fair) 3150
656, 1967 (Fair) 2400*
650 diesel, 1957 (Fair) 1050
560 diesel, 1956 (Rough) 2600
504, 1964 (Fair) 1600*
454, ldr., 1973 (Fair) 4000*
450, 1957 (Good) 1290
400, 1955 (Rough) 600
240, ldr., 1980 (Excellent) 11,500*
Sup. M, 1951 (Good) 1450
Sup. M, 1950 (Rough) 775
M, (Good) 1160
M, 1949 (Fair) 785
M, 1949 (Fair) 725
M, 1948 (Rough) 650
H, cult., 1949 (Fair) 1000
Sup. A, 1952 (Fair) 1100*
A, plow, cult., 1950 (Fair) 1200
A, 1951 (Good) 685
A, 1950 (Fair) 600
C, cult., 1948 (Rough) 710
Cub, cult., 1950 (Fair) 1050*

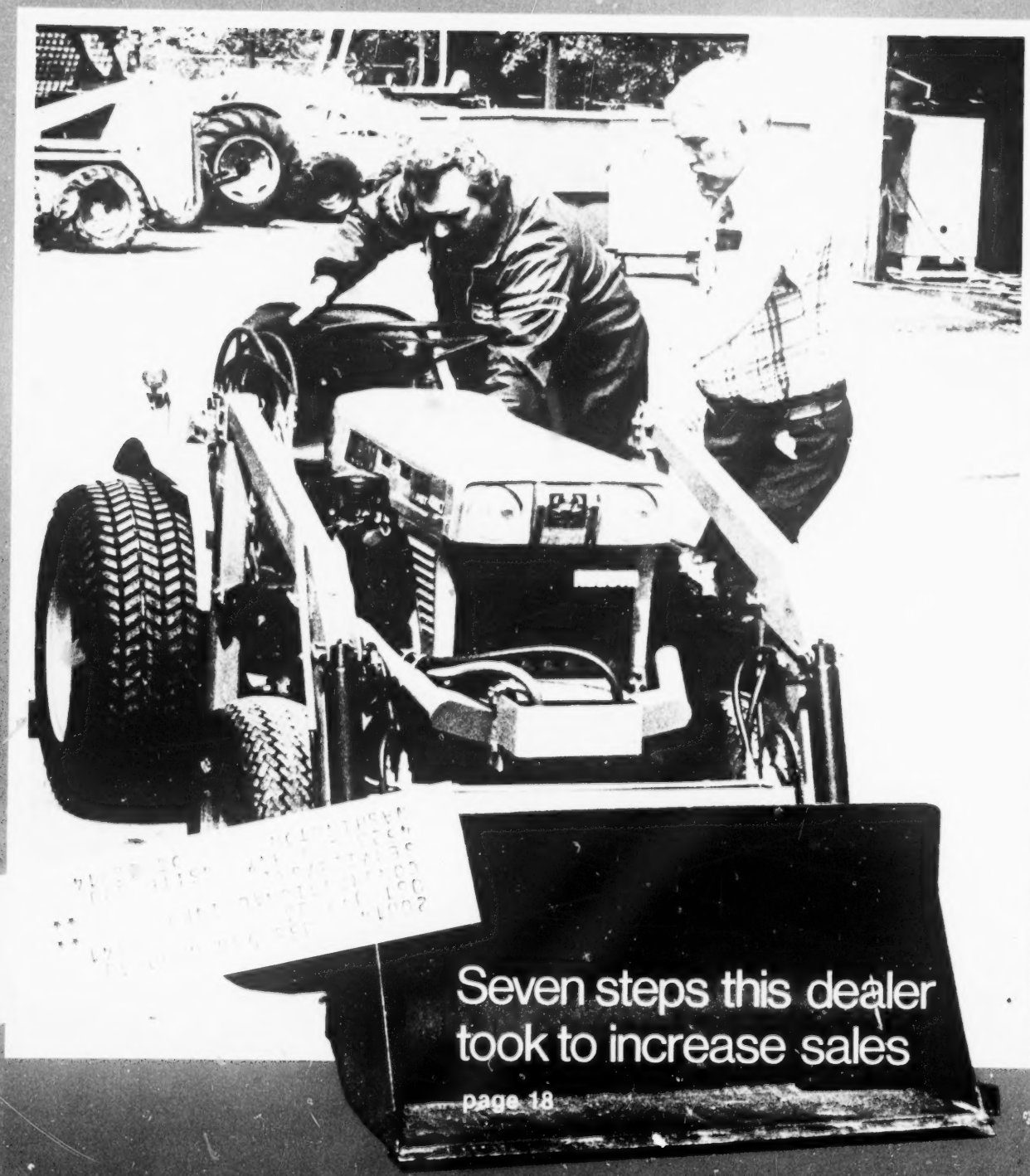
MASSEY-FERGUSON TRACTORS
2135 diesel (Rough) 2025
1085 diesel, 1977 (Good) 6900*
255, 1971 (Fair) 5600*
175, 1968 (Good) 3700
165, 1968 (Good) 3500
165, 1962 (Fair) 2950*
135, ldr., 1967 (Fair) 2400*
Sup. 90, 1956 (Good) 2500
50, 1957 (Fair) 2200

MINNEAPOLIS-MOLINE TRACTORS
G1000G, 1966 (Good) 3350
Jet Star 3, 1955 (Fair) 1825

OLIVER TRACTORS
1850, 1965 (Fair) 3200
1800, 1963 (Rough) 3100*
1800, 1962 (Good) 3500
1800, 1961 (Fair) 2300*
1755, (Rough) 4400*
1650, 1965 (Fair) 3200*
880 diesel, 1950 (Good) 1075
88, 1949 (Fair) 650
77, 1949 (Fair) 650
Sup. 55, 1956 (Rough) 1100*
Sup. 55, 1956 (Fair) 1350

August 21, 1981
TWO DOLLARS
Serving the Farm and Industrial Equipment Industry Since 1886

Implement & Tractor



Seven steps this dealer took to increase sales

page 18

Lease-Oriented Deals Generate Sales page 10

IMPLEMENT & TRACTOR
Editorial, advertising
and circulation correspondence
should be addressed to:
9221 Quivira Rd.
P.O. Box 12901
Overland Park, Kan. 66212
(a suburb of Kansas City, Mo.)
Telephone (913) 888-4664
Telex: 42-4156; Answerback
Intertec OLPK

EDITORIAL
Bill Fogarty, Editor
Jack Root, Managing Editor
Charles A. McMurray, Jr., Editor, Red Book
Pat Blanton, Editor, Product File
Dudley Rose, Senior Art Director
Anita Blattner, Art Director
Irma Allread, Associate Editor
Tina Thorpe, Editorial Assistant

Contributing Editors:
Graham Fuller, Britain and Europe
Frank Buckingham, Agricultural Engineering
Melvin E. Long,
Engineering and Production Topics

CIRCULATION
John Arnst, Director
Evelyn Rogers, Manager
Dee Manies, Reader Correspondent

ABP A member of American Business Press

ABC A member of Audit Bureau of Circulation

ADVERTISING
Lou McNeill, Production
(Regional advertising sales offices
listed on ad index page.)

ADMINISTRATION
R. J. Hancock, President
Edward F. Mickells, Publisher

IMPLEMENT & TRACTOR (USPS 461-750), with which is combined Farm Implement News, is published twice monthly except in January and March, when third issues are published, and in July and December, when one issue only is published, by INTERTEC PUBLISHING CORP., 9221 Quivira Rd., Overland Park, Ks. 66215 (a suburb of Kansas City, Mo.).

Subscription information: Implement & Tractor is edited for persons in the farm and industrial equipment industry who function in the areas of retail sales and service, distribution sales and service, marketing, engineering, financing, manufacturing and general management. Subscription prices to qualified subscribers: U.S. one year—$10, two years—$15; elsewhere including Canada, one year—$17, two years—$25. Subscription prices to all others: U.S. one year—$34, two years—$66; elsewhere including Canada, one year—$39; two years—$78. Single copies, $2, except Annual Statistical Number, $4; Product File issue, $5; Red Book issue, $5. Adjustment necessitated by subscription termination at single copy rate. Extra charge for service on back issues. Allow 6-8 weeks for change of address and new subscriptions.

INTERTEC PUBLISHING CORP.

August 21, 1981 • Vol. 96 • No. 17

Implement & Tractor

The Business Magazine of the Farm and Industrial Equipment Industry

in this issue...

10: **Lease-Oriented Deals.** Some dealers are turning to leasing programs to meet customer needs and generate profits from equipment sales to captive and commercial lessors.

14: **Ag Engineers Ponder Potter...**Robert J. Potter, International Harvester's chief technical officer, spoke on agricultural energy sources at the Summer Meeting of the American Society of Agricultural Engineers.

18: **Seven Steps This Dealer Took to Increase Sales.** Dealer Wayne Buck learned it takes creativity, redirected efforts and more accurate targeting of customer potential to generate sales and profits in today's farm and industrial equipment market. Second of two parts on coping creatively with an economic slowdown.

22: **Five Questions About Computers.** Ron Stallings, a dealer-turned-management specialist, talks about the most frequently asked questions concerning in-house computer setups.

On the cover... At Buck & Sons Tractor Co., Tacoma, Wash., service manager Jerry Ringman, left, and dealer Wayne Buck check out a new Kubota tractor for their growing "weekend warrior" (part-time farmer) market.

DEPARTMENTS

What's Ahead 4	Retail Sales of Selected Farm Equipment 28
Editor's Notebook 5	Industry in Motion 29
What's New 6	Farm Equipment Patents 29
Retail Sales of Wheel Tractors 8	Classified Ads 30
New Literature 20	Index to Advertisers 30
Auction Prices 24	Brown Pages 31
News Briefs 26	

Second Class postage paid at Shawnee Mission, Ks. 66201.
Postmaster: Return Form 3579 to Implement & Tractor, P.O. Box 12901, Overland Park, Ks. 66212.

© Copyright, 1981, INTERTEC PUBLISHING CORP. All rights reserved. Material may not be reproduced or photocopied in any form without written permission of publisher.

BEST AVAILABLE COPY

RETAIL SALES OF WHEEL TRACTORS*
(In Units)

	Total Wheel Tractors†				Cumulative for Jan.-May, 1980				Cumulative for Jan.-May, 1981			
	May, 1980		May, 1981		Farm Type				Farm Type			
	Farm	Non-Farm	Farm	Non-Farm	2-Wheel Drive	4-Wheel Drive	Total Farm	Non-Farm	2-Wheel Drive	4-Wheel Drive	Total Farm	Non-Farm
Alabama	219	41	140	33	1,090	36	1,126	175	795	18	813	143
Alaska	9	8	2	5	8	5	13	11	11	.....	11	20
Arizona	112	33	39	23	375	47	422	198	294	26	320	152
Arkansas	267	46	199	36	1,464	186	1,650	234	1,142	164	1,306	154
California	317	203	306	170	1,744	131	1,875	1,099	1,707	178	1,885	950
Colorado	98	51	90	38	411	86	497	253	424	93	517	204
Connecticut	26	11	16	10	109	3	112	85	71	2	73	59
Delaware	15	5	15	2	79	4	83	15	54	2	56	11
Florida	217	79	164	90	941	29	970	506	948	24	972	465
Georgia	307	54	207	44	1,430	27	1,457	205	1,089	12	1,101	236
Hawaii	8	7	4	15	25	.....	25	50	27	4	31	37
Idaho	82	9	114	12	409	42	451	63	598	98	696	69
Illinois	455	63	369	58	2,082	349	2,431	315	1,868	334	2,202	297
Indiana	279	42	247	43	1,221	200	1,421	219	1,018	159	1,177	163
Iowa	346	50	429	32	2,489	258	2,747	141	2,444	284	2,728	94
Kansas	322	26	233	21	1,255	294	1,549	158	896	195	1,091	136
Kentucky	433	76	298	33	1,712	39	1,751	178	1,536	26	1,562	206
Louisiana	252	41	237	69	1,131	121	1,252	254	1,180	114	1,294	313
Maine	31	3	29	5	82	2	84	48	101	3	104	29
Maryland	78	30	64	43	319	23	342	126	226	15	241	164
Massachusetts	17	22	15	24	51	.....	51	101	57	.....	57	109
Michigan	229	64	299	52	914	94	1,008	339	1,026	157	1,183	279
Minnesota	331	26	372	33	1,527	280	1,807	172	1,787	292	2,079	133
Mississippi	293	29	227	17	1,481	124	1,605	135	1,094	93	1,187	130
Missouri	347	45	361	46	1,611	127	1,738	265	1,276	124	1,400	201
Montana	120	18	96	10	457	129	586	92	340	113	453	62
Nebraska	197	10	274	13	1,465	183	1,648	71	1,222	126	1,348	55
Nevada	15	8	3	9	50	7	57	51	43	6	49	50
New Hampshire	7	2	15	9	45	.....	45	30	35	.....	35	37
New Jersey	27	37	22	50	131	1	132	192	97	.....	97	177
New Mexico	38	20	27	11	194	10	204	89	151	14	165	105
New York	239	98	280	63	911	38	949	374	892	74	966	299
North Carolina	352	47	193	41	1,524	20	1,544	262	1,193	16	1,209	227
North Dakota	139	17	218	9	606	344	950	55	761	375	1,136	30
Ohio	341	71	311	56	1,580	164	1,744	345	1,289	161	1,450	282
Oklahoma	210	50	250	46	911	139	1,050	232	788	107	895	294
Oregon	103	21	137	33	474	33	507	171	457	46	503	144
Pennsylvania	219	82	197	85	867	27	894	432	815	34	849	368
Rhode Island	1	3	5	.....	6	.....	6	21	10	.....	10	16
South Carolina	160	34	87	30	716	24	740	133	465	12	477	143
South Dakota	87	10	94	5	624	109	733	43	537	113	650	28
Tennessee	345	21	276	21	1,351	45	1,396	159	1,132	31	1,163	134
Texas	858	248	800	294	3,762	248	4,010	1,489	3,549	205	3,754	1,476
Utah	63	20	63	14	235	14	249	131	274	14	288	119
Vermont	32	7	32	5	96	.....	96	13	115	1	116	23
Virginia	232	38	163	37	926	14	940	258	677	10	687	190
Washington	150	44	139	44	718	68	786	204	580	80	660	152
West Virginia	62	54	42	9	183	.....	183	91	140	.....	140	56
Wisconsin	438	26	509	38	1,815	100	1,915	195	1,778	115	1,893	171
Wyoming	36	8	35	12	136	16	152	67	171	18	189	82
U.S. Government	8	60	2	4	51	.....	51	356	6	.....	6	37
Miscellaneous‡	48	126	2	88	178	.....	178	361	97	.....	97	313
TOTAL	**9,617**	**2,244**	**8,748**	**1,990**	**43,972**	**4,240**	**48,212**	**11,262**	**39,283**	**4,088**	**43,371**	**9,826**

Data released July 21, 1981, Farm & Industrial Equipment Institute.

Figures do not include garden tractors, motor tillers or contractors off-highway types. Report includes units marketed by these firms: Allied Farm Equip. (Leyland Satoh); Allis-Chalmers; Belarus; J I Case; Deere; Deutz; Ford; International Harvester; Long; Massey-Ferguson; R. M. Wade (Satoh); Steiger; Versatile; and White.

†The monthly sales are those reported for that month only. The cumulative totals are subject to revision reflecting updating in the basic sales data.

‡Sales reported as miscellaneous are retail sales which cannot be classified by state or as U.S. Government. They include sales and dispositions that do not go through usual marketing channels such as gifts to non-profit organizations, intra-plant or company transfers, etc.

AUCTION PRICES OF USED EQUIPMENT

An exclusive I&T monthly report of actual prices paid recently at these leading national wholesale auctions.

Asterisk beside tractor price indicates highest bid offered on tractors which were not sold.

JONES FARM EQUIPMENT CO. Dothan, Alabama (July 14, 1981)

ALLIS-CHALMERS TRACTORS

7580 diesel, cab, duals, 1977 (Good) 18,500*
7080 diesel, duals, 1978 (Good) 17,000*
7040 diesel, cab, duals, 1977 (Good) 10,500*
5040 diesel, 1978 (Excellent) 4900*
XT190 diesel, series III, duals, 1969 (Excellent) 4000*
185 diesel, 1972 (Good) 3900
160 diesel, 1972 (Fair) 2900*
160 diesel, 1972 (Rough) 2350
D15 diesel, 1964 (Fair) 800

CASE TRACTORS

1070 diesel, 1970 (Fair) 3750*
580C diesel, ldr., 1977 (Fair) 3200
580C diesel, 1977 (Fair) 3600

DEUTZ TRACTORS

9006 diesel, (Good) 4400*
5505 diesel, (Rough) 1200*

DAVID BROWN TRACTORS

1212 diesel, 1974 (Good) 3250*
990 diesel, 1966 (Good) 2000*
770 diesel, 1966 (Good) 1700*

MASSEY-FERGUSON TRACTORS

1135 diesel, 1974 (Good) 6250
1105 diesel, 1976 (Good) 6450*
1105 diesel, 1973 (Good) 5150*
1105 diesel, 1973 (Fair) 4000
1100 diesel, 1968 (Fair) 2950
1100 diesel, 1966 (Rough) 1600
1080 diesel, 1972 (Rough) 2400*
285 diesel, 1976 (Good) 5600
275 diesel, 1976 (Good) 5750
275 diesel, 1976 (Good) 6050
275 diesel, 1976 (Excellent) 6800
265 diesel, 1979 (Excellent) 8200
265 diesel, 1976 (Fair) 4700*
245 diesel, 1978 (Excellent) 6150
245 diesel, 1977 (Excellent) 6500*
230 diesel, 1979 (Excellent) 6700*
202, ldr., 1962 (Fair) 1150
180 diesel, 1966 (Good) 3250*
180 diesel, 1966 (Good) 3500*
175 diesel, 1973 (Good) 3950
175 diesel, 1968 (Good) 3400
175 diesel, 1968 (Fair) 3150
165 diesel, 1971 (Fair) 3375
165 diesel, 1971 (Rough) 2250
165 diesel, 1967 (Fair) 3050*
165 diesel, 1967 (Rough) 1575
165 diesel, 1967 (Rough) 1800
135 diesel, 1971 (Good) 2950*
135 diesel, 1968 (Good) 3300
65 diesel, 1963 (Fair) 1600
65 diesel, 1962 (Good) 2200*
50A diesel, ldr., backhoe, 1974 (Good) 4500
50 diesel, 1964 (Good) 1800
50 diesel, 1962 (Good) 1900*
35 diesel, 1963 (Good) 1950
35 diesel, 1962 (Good) 2350
35 diesel, 1961 (Good) 2100
TO30, 1953 (Fair) 700
TO20, 1949 (Fair) 675

FORD-FERGUSON TRACTORS

9N, 1946 (Good) 1000
9N, 1944 (Fair) 675

FORD TRACTORS

8600 diesel, cab, 1974 (Fair) 4950*
8000 diesel, 1972 (Fair) 4300
8000 diesel, 1969 (Fair) 3850*
7700 diesel, cab, 1976 (Excellent) 14,000
7000 diesel, 1974 (Good) 5700*
6700 diesel, 1977 (Good) 8050
5000 diesel, 1975 (Rough) 2250
5000 diesel, 1971 (Excellent) 5200
5000 diesel, Log Hog, 1969 (Rough) 2000*
4000 diesel, 1966 (Good) 3050*
4000, ldr., 1963 (Good) 2000
3600 diesel, 1976 (Good) 5200
3000 diesel, 1972 (Fair) 3250
3000 diesel, 1972 (Fair) 3550*
3000 diesel, 1971 (Good) 3600
3000, 1967 (Rough) 1700
2600 diesel, 1978 (Fair) 3250
2600, 1978 (Excellent) 6050
2000 diesel, 1963 (Good) 1600*
871, 1961 (Good) 1800
861 diesel, 1960 (Good) 2350*
860, 1957 (Good) 1950*
851, 1958 (Good) 1700*
850, 1955 (Good) 2150
841 diesel, 1959 (Good) 1975
641, 1959 (Good) 1950*
640, 1956 (Good) 1900*
640, 1955 (Good) 2000*
Dextra, 1958 (Good) 1600
NAA, 1954 (Good) 1600
Jub., 1953 (Fair) 1200
8N, 1952 (Excellent) 1700
8N, 1952 (Good) 1400
8N, 1952 (Good) 1375
8N, 1948 (Good) 975
8N, 1948 (Good) 1000
8N, 1948 (Fair) 775

INTERNATIONAL HARVESTER TRACTORS

1486 diesel, 1978 (Excellent) 1500
2500, 1976 (Fair) 2000*
1066 diesel, 1975 (Good) 5750*
686 diesel, 1977 (Good) 6100
674 diesel, 1975 (Good) 3700
656 diesel, 1966 (Good) 3500
574 diesel, 1972 (Fair) 2850*
574 diesel, 1972 (Rough) 1775
424 diesel, 1967 (Good) 1650*
364 diesel, 1976 (Rough) 1650
350, cult., plow, har., 1958 (Fair) 800
284 diesel, 1976 (Fair) 1800*
B275 diesel, 1959 (Good) 1300
100 diesel, hydro, cab, 1975 (Good) 5500
H, 1946 (Good) 385
Sup. C, 1953 (Good) 775*
Cub, 1948 (Fair) 750
Cub, mo., 1948 (Fair) 1050
Cub, mo., 1948 (Good) 1450
Cub, 1948 (Good) 1400*

JOHN DEERE TRACTORS

5020 diesel, duals, 1966 (Good) 5350
4230 diesel, 1974 (Fair) 4500
4020 diesel, 1966 (Rough) 2250
4020 diesel, 1966 (Good) 5500
4020 diesel, 1966 (Rough) 3150
3020 diesel, 1968 (Good) 5400
3020 diesel, 1967 (Fair) 4400
3020 diesel, 1966 (Good) 4900
3010, 1963 (Fair) 2450*
3010 diesel, 1961 (Fair) 2150
2630 diesel, 1975 (Excellent) 5950
2030 diesel, 1973 (Good) 3550
2030 diesel, 1973 (Good) 4500*
2020 diesel, 1967 (Fair) 3225
2020 diesel, 1966 (Good) 3750*
1010, 1962 (Good) 1900*
1010, 1962 (Fair) 1250*
830 diesel, 1975 (Good) 3400
820 diesel, 1968 (Fair) 2000
430, 1960 (Good) 900*
430, 1960 (Good) 1000
300 diesel, ldr., 1969 (Good) 3300*
70, 1955 (Good) 585
G, 1950 (Good) 700
A, 1940 (Rough) 200

LONG TRACTORS

1100 diesel, (Good) 2700
900 diesel, 1968 (Good) 2400
310 diesel, (Excellent) 3900*

LEYLAND TRACTOR

270 diesel, (Good) 1500

MINNEAPOLIS-MOLINE TRACTOR

G955 diesel, 1973 (Fair) 2800

KUBOTA TRACTORS

245 diesel, 1979 (Excellent) 3700*
185 diesel, 1979 (Excellent) 3550*

NOTES
Prices reported are for individual sales at wholesale on "as is," "cash and carry" basis.
Prices reported are NOT averages.

Condition classifications: EXCELLENT means—Engine: in perfect condition, 400 to 600 hours of use; Rubber: 80% tread remaining, no breaks or cracks; Paint: original and bright; General Appearance: excellent.

GOOD means—Engine: good running condition; Rubber: 70% tread remaining, no breaks or cracks; Paint: original paint or a good repaint job; General Appearance: good over-all.

FAIR means—Engine: possibly in need of a minor overhaul to restore; Rubber: 60% tread remaining, some cracking evident in side walls; Paint: only fair, weathered and some rust apparent; General Appearance: worn, some dents, minor parts such as gage covers missing or broken.

ROUGH means—Engine: obviously in need of a major overhaul; Rubber: smooth; Paint: scarred, weathered, rusty, needs painting urgently; General Appearance: dents, ruptures, broken parts, loose wires, some components such as lights broken, missing or inoperative.

DEMONSTRATOR means—used for demonstrating only and in practically new condition.

Don't sell too low...

and don't pay too much...

stay up-to-date on used equipment values with I&T

RETAIL SALES OF SELECTED FARM EQUIPMENT – Jan.-May., 1980 and 1981(1)
(In units)

	Combines Self-Propelled		Corn Heads		Hay Balers(2)		Windrowers Self-Propelled Power Units		Windrowers Self-Propelled Total Heads		Grinder-Mixers		Shear-Bar Forage Harvesters(3)	
	1980	1981	1980	1981	1980	1981	1980	1981	1980	1981	1980	1981	1980	1981
Alabama	50	41	15	5	35	83	2	.....	1	.....	79	46	5	14
Alaska	.....	.....	.....	.....	6	5	.....	.....	.....	.....	.....	1	.....	.....
Arizona	23	43	.....	1	17	29	30	33	38	39	5	2	2	7
Arkansas	115	220	.....	1	68	96	.....	.....	.....	.....	46	30	2	3
California	80	120	6	19	54	81	124	147	141	163	1	3	25	26
Colorado	59	89	28	22	64	58	52	42	57	44	37	37	21	8
Connecticut	.....	.....	.....	.....	16	10	.....	.....	.....	.....	.....	.....	8	6
Delaware	9	6	4	4	2	3	1	1	1	1	6	2	3	1
Florida	17	12	8	8	25	27	.....	.....	.....	.....	24	8	12	5
Georgia	84	100	60	30	38	76	1	.....	1	.....	160	51	22	21
Hawaii	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
Idaho	44	103	3	1	97	98	65	76	65	78	31	16	14	11
Illinois	553	553	551	471	72	78	9	7	9	7	293	217	71	74
Indiana	354	284	350	263	63	69	5	2	5	2	219	137	52	34
Iowa	671	550	640	517	68	79	26	45	27	43	722	493	133	93
Kansas	591	553	92	35	110	96	110	102	109	105	140	97	72	32
Kentucky	66	72	36	43	64	80	2	8	2	7	206	116	42	48
Louisiana	56	73	.....	1	14	36	.....	.....	.....	.....	10	5	6	4
Maine	.....	.....	.....	.....	9	9	.....	.....	.....	.....	.....	1	9	5
Maryland	33	17	26	27	29	26	7	1	6	1	19	17	22	13
Massachusetts	.....	.....	.....	.....	7	8	.....	.....	.....	.....	1	.....	3	4
Michigan	110	102	93	76	64	46	9	17	9	16	126	109	83	64
Minnesota	295	333	230	213	177	152	88	110	91	119	331	299	140	122
Mississippi	94	102	1	2	27	55	.....	.....	.....	.....	22	20	15	8
Missouri	236	229	132	66	121	146	18	18	18	19	299	181	30	34
Montana	84	135	2	2	61	42	77	66	77	73	39	23	10	4
Nebraska	359	276	289	175	41	41	89	76	87	80	313	193	68	45
Nevada	1	1	.....	.....	13	6	12	14	15	15	2	2	3	1
New Hampshire	.....	.....	.....	.....	14	12	.....	.....	.....	.....	.....	1	6	2
New Jersey	6	5	7	5	9	7	.....	.....	.....	.....	4	6	5	3
New Mexico	5	17	2	1	35	45	22	20	24	20	7	6	.....	1
New York	30	17	39	27	134	90	13	9	14	10	71	61	147	71
North Carolina	69	54	56	47	72	96	1	.....	1	.....	85	64	18	13
North Dakota	196	295	10	11	14	9	51	74	54	82	73	66	21	10
Ohio	327	223	225	188	110	109	3	2	3	2	242	150	67	57
Oklahoma	180	257	2	1	138	167	33	48	34	50	71	41	9	8
Oregon	35	62	3	2	88	82	44	39	45	59	18	11	10	13
Pennsylvania	38	35	59	29	182	143	14	16	16	15	162	119	123	94
Rhode Island	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
South Carolina	49	36	19	6	21	33	.....	.....	.....	.....	41	20	11	10
South Dakota	111	104	60	41	22	9	91	70	101	77	198	109	47	36
Tennessee	73	69	36	16	104	170	1	.....	1	.....	111	75	30	40
Texas	271	494	41	51	168	314	22	38	23	48	122	87	32	20
Utah	6	10	1	1	50	42	24	24	24	22	21	7	14	4
Vermont	.....	.....	.....	.....	29	20	1	1	1	1	.....	1	36	13
Virginia	32	26	24	18	115	88	3	2	3	2	59	30	42	31
Washington	66	97	8	8	83	54	46	40	43	46	12	6	29	25
West Virginia	.....	.....	.....	.....	35	35	.....	.....	.....	.....	16	8	2	2
Wisconsin	99	81	126	90	384	291	97	69	97	72	304	255	479	301
Wyoming	10	18	1	3	26	21	19	25	18	26	12	9	3	3
U.S. Government	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Miscellaneous (4)	.....	.....	.....	12	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
TOTAL	**5,587**	**5,914**	**3,285**	**2,539**	**3,195**	**3,372**	**1,212**	**1,242**	**1,261**	**1,342**	**4,760**	**3,238**	**2,006**	**1,444**

Data released July 21, 1981, Farm & Industrial Equipment Institute.

(1) Includes revisions for prior months.
(2) For making bales of under 200 lbs.
(3) Pull-type, mounted, self-propelled.
(4) Sales reported as miscellaneous are retail sales which cannot be classified by state or as U.S. Government. They include sales and dispositions that do not go through usual marketing channels such as gifts to non-profit organizations, intra-plant or company transfers, etc.

Mower Conditioners All Types 1980	1981	Manure Spreaders Conveyor-Type 1980	1981	
40	57	13	8	Alabama
.....	2	.....	2	Alaska
5	7	6	2	Arizona
103	167	61	56	Arkansas
18	27	21	26	California
22	36	40	32	Colorado
20	10	38	40	Connecticut
7	1	43	33	Delaware
21	21	11	12	Florida
87	88	24	15	Georgia
.....	.....	1	.....	Hawaii
23	37	59	58	Idaho
134	191	357	308	Illinois
123	149	271	282	Indiana
220	271	777	753	Iowa
173	201	136	80	Kansas
239	267	180	156	Kentucky
18	27	12	9	Louisiana
19	16	55	32	Maine
28	20	137	87	Maryland
16	12	38	43	Massachusetts
124	106	409	376	Michigan
246	229	698	641	Minnesota
26	41	8	12	Mississippi
440	381	201	150	Missouri
27	38	28	13	Montana
138	132	247	107	Nebraska
2	2	5	2	Nevada
16	14	33	21	New Hampshire
18	4	28	23	New Jersey
4	6	3	4	New Mexico
242	174	740	700	New York
89	84	89	53	North Carolina
17	15	49	41	North Dakota
210	172	486	419	Ohio
203	228	33	17	Oklahoma
50	61	49	41	Oregon
251	156	743	606	Pennsylvania
1	.....	.....	.....	Rhode Island
27	48	20	7	South Carolina
25	24	114	105	South Dakota
192	252	107	79	Tennessee
291	409	82	82	Texas
31	34	70	46	Utah
51	25	115	101	Vermont
263	157	136	82	Virginia
45	55	74	50	Washington
47	29	36	34	West Virginia
567	442	1,141	993	Wisconsin
7	10	27	15	Wyoming
.....	.....	.....	.....	U.S. Government
.....	.....	.....	.....	Miscellaneous
4,966	4,935	8,051	6,854	TOTAL

INDUSTRY IN MOTION

Dan A. Holden has been appointed vice-president of human resources and communications for **International Harvester's Agricultural Equipment Group.** He will be responsible for employee relations and internal and external communication activities for the Group's worldwide operations.

Stephen Simpson has been appointed service manager for **Bush Hog,** Selma, Ala., and will be responsible for warranty administration, field service, service training schools and seminars for the complete Bush Hog product line.

Neapco, Inc., has opened a 34,000-sq.-ft. manufacturing facility in Beatrice Industrial Park, Beatrice, Neb., which will be used for manufacturing, distribution, storage, assembly and also as a staging area to complement its facility in Pottstown, Pa.

Ford Tractor Operations has received a contract to supply more than $29 million of farm and industrial equipment to a state government in Mexico for agricultural development and road construction. The equipment order from the State of Mexico includes 1,000 farm tractors, 115 industrial tractors equipped with front loaders and backhoes, and 75 heavy-construction wheel loaders. The farm tractors, all model 6600, will be assembled and partly manufactured in Mexico.

A restructured marketing program has led to the appointment of new key personnel at **Lely Independence Mfg., Inc.,** Independence, Mo.: Gordon Deitch, national accounts manager, western region, and H. R. Morehead, national accounts manager, eastern region. Salesmen assigned include: Dave Bray—Illinois; Steve Fanning—northern Iowa; M. A. Fennewald—Missouri; Don Schlicte—southern Iowa; and Larry Vennum—Nebraska. John Hoffman is the new product development manager. The company manufactures the Clark line of agricultural sprayers and applicators, chemical tanks and liquid manure units.

Computer Questions

(Continued from page 23)

will reduce receivables. You thus have more cash flow and inventory turnover. Also, the computer can give you faster and better data to reduce delinquent accounts. But no computer system can substitute for proper business judgment!

•D. Managing with the right computer-based information system, you should be able to expand your business without a large increase in personnel or other costs.

•E. A computer-based information system will give you better control when you are not at the dealership. We all want and need to be away from the place now and then, and the computer, properly put into operation, can make it easier for you to leave and return with everything under control.

As a closing footnote: When you buy a computer, it does not necessarily mean you will be dismissing employees. The computer should be used to do the daily time-consuming jobs usually required of employees—leaving them free for more complex or expanded duties. □

FARM EQUIPMENT PATENTS

(Copies of patents are available for $.50 each from: Commissioner of Patents & Trademarks, Washington, D.C. 20231. Numbers in parentheses denote the international classification number.)

4,260,321. **Lock Mechanism for Securing a Backhoe Boom and Swing Frame for Transport.** (E02F 3/32) Lynn Beauchamp and LeRoy E. Draske, both of Dubuque, Iowa, assignors to Deere & Co., Moline, Ill.

4,261,161. **Agricultural Machinery Protective System.** (A01D 75/18) David J. Colgrove, Winslow, England; Antoon S. P. Cools, Brugge-St. Kruis, and Eric A. Mortier, Wingene, both of Belgium; assignors to Sperry Corp., New Holland, Pa.

4,261,163. **Method and Apparatus for Harvesting Produce on Plastic Mulch Beds.** (A01D 46/00) Lawrence N. Shaw, 8715 NW. 4th Pl., Gainesville, Fla. 32601.

4,261,400. **Hydraulically Powered Attachment for a Tractor.** (B27L 7/00) David M. Spence, Afton Manor, Freshwater, Isle of Wight, England.